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CONTENTS

Education the Foundation of Democracy: J. W. CRABTREE ... 617

The Social Studies in the Junior High School: THOMAS WARRINGTON GOSLING ... 623

The Process of Surveying Higher Education: PARK R. KOLBE ... 627

Educational Events:

President Harding on Education Week; Immigrant Education in Massachusetts; Wilmington and the Platoon Plan; Post-War Conditions at Trinity College, Dublin; Special Courses for Freshmen; The National Association of Secondary School Principals ... 631

Educational Notes and News ... 634

Special Correspondence:

The Visual Instruction Association of America: ERNEST L. CRANDALL ... 638

Educational Research and Statistics:

The Acquisition of Skill in the Throwing of Basket-Ball Goals: STUART GRAYSON NOBLE ... 640

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SCHOOL AND SOCIETY

Volume XVI | Saturday, December 2, 1922 | Number 414

EDUCATION THE FOUNDATION OF DEMOCRACY[1]

Education, the foundation of sound government, is as much the theme of the Sons of the American Revolution as of the National Education Association. The same intelligence necessary for a durable democracy is necessary for respecting the flag, for understanding the Constitution, and for the appreciation of good government. A system of education which fails to develop patriotism also fails to develop the other cardinal virtues on which good citizenship depends.

Our ancestors who drafted the Declaration of Independence, who framed the Constitution, and who created a new nation, saw clearly that the success and continued prosperity of the government they had established depended entirely upon making adequate provision for the education of the people.

It is said that it took the World War to awaken the people of to-day to the necessity of doing away with illiteracy. The War of the Revolution may have revealed the same need to the leading minds of that day, and this may account for their constantly calling attention to the importance of the education of all the people in a democracy. Let us give the views of some of these men. George Washington said:

> Promote, then, as an object of primary importance, institutions for the general diffusion of knowledge. In proportion as the structure of a government gives force to public opinion, it is essential that public opinion should be enlightened.

Washington believed the government should share in the responsibility of providing educational opportunities for the people. He advocated a national university—and, as a means to that end, left a substantial sum to aid in establishing such an institution. The World War revealed conditions which showed that we had not fully appreciated Washington's ideals and advice as to the primary importance of education, and, strange as it may seem, we have even lost track of the funds which he left for a national university.

Thomas Jefferson constantly urged the importance of education. He did not think the nation could exist half illiterate. He said:

> Above all things I hope the education of the common people will be attended to. I am convinced that on this good sense we may rely with the most security for the preservation of a due degree of liberty.
>
> If a nation expects to be ignorant and free in a state of civilization, it expects what never was and never will be . . . . There is no safe deposit (for the functions of government) but with people themselves; nor can they be safe with them without information.

Jefferson made a determined effort for free schools in Virginia, from the primary grade through the university, but his ideals proved to be many years in advance of the ideals of the people of his state.

John Jay, the first chief justice of the United States, did not fail to see that education is the rock on which our government rests. He declared that knowledge is the soul of the Republic:

[1] Address before the Sons of the American Revolution, Washington, D. C., November 15, 1922.

As the weak and the wicked are generally in alliance, as much care should be taken to diminish the number of the former as of the latter. Education is the way to do this, and nothing should be left undone to afford all ranks of people the means of obtaining a proper degree of it at a cheap and easy rate.

James Madison believed education absolutely necessary to popular government. He never lost an opportunity to impress the people with the dangers of ignorance. He said:

A popular government without popular information or the means of acquiring it, is but a prologue to a farce or a tragedy, or, perhaps, both. Knowledge will forever govern ignorance; and a people who mean to be their governors must arm themselves with the power which knowledge gives.

John Adams was especially insistent on viewing education as a function of the public and the government. He realized the cost of an adequate system of public instruction but maintained that no expense for this purpose would be too great:

Laws for the liberal education of youth, especially of the lower classes of people, are so extremely wise and useful that, to a humane and generous mind, no expense for this purpose would be thought extravagant.

While progress has been made, many important things have been left undone. Our national neglect contrasts conspicuously with outstanding achievements in favored localities and states.

I have not believed it possible to communicate with departed souls, but if it were possible, I should hope that no one would be ungrateful enough to tell Washington, Jefferson, Madison, Jay or Adams that the United States has, at the present time, the highest percentage of illiteracy of the leading enlightened nations of the world. I am almost ashamed to mention the fact to the descendants of the distinguished men of the Revolutionary period. The following shows the percentages of illiteracy in six of these nations: Germany, .2; Norway, 1.0; Sweden, 1.0; England, 1.8; France, 4.9; and the United States, 6.0. I do not like to say so, nevertheless it is true, that if you multiply Germany's percentage by 30, you will have the figure showing the percentage of illiteracy in the United States.

I would equally regret to have your illustrious ancestors know the fact that the census figures are really an understatement of the number of illiterates. In order to be classed as an illiterate in the census a person must confess that he is illiterate. No test of any kind is given. It has been admitted that many are ashamed to confess their lack of education and hence are not counted as illiterates by the census. Let me quote from Volume I of the 1910 Census, page 1185:

If a person has had even the *slightest amount of schooling he is not classed as an illiterate.*

And, again, from Volume III of the 1920 Census, page 10:

The illiterate population as shown by the Census reports should be understood as representing *only those persons who have had no schooling whatever.*

The census figures show 6 per cent. of the population to be illiterate. The army draft figures show almost 25 per cent. of the men between the ages of 21 and 31 to be illiterate, this draft test of literacy being the ability to read a newspaper and to write a letter home. This illustrates the reasons why the census figures differ from the army draft figures. In doing away with illiteracy, let us do away with it up to the draft line rather than to stop at the census line. Do away with the 6 per cent. census illiteracy and there will still remain nearly 20 per cent. of our people who can not read an item in the newspaper.

There has been a decrease in illiteracy during the last ten years, so slight, however, that we can not be proud of it. At the rate of the decrease made in ten years,

it would require almost 100 years to do away with the census 6 per cent. The decrease was mainly in the Southern States and there was an actual increase of from 5,000 to 20,000 in each of the states of Massachusetts, New York, Ohio, Illinois, Michigan, California and a few other northern and western states.

Where do these illiterates come from? Are they the product of immigration? A few of them are of foreign birth, but 62 per cent. of the 5,000,000 illiterates are native born. A million are native born whites and the *offspring* of native born whites,—the direct descendants of that same revolutionary stock from which you descend.

While we should not fail to take honest pride in what has been accomplished by the public schools, we can not afford to close our eyes to certain defects and inequalities that exist. The present condition of illiteracy may be nearer the danger line that we are aware of. The army draft indicates that the nation has 15,000,000 adult illiterates, which is 45 per cent. of the presidential vote of 1920. Fortunately all illiterates do not vote. The danger, however, from the illiterate vote may readily be seen in places where the ignorant outnumber the enlightened and where demagogues regularly name the mayor and even the congressman.

President Lincoln said, "I hope I may live to see the day when an unfettered start and a fair chance in the race of life is guaranteed to every American boy and girl." Boys in favored localities now have a chance to get an education, but those in some other places have no such opportunity. One out of every four does not have a chance even to learn to read a newspaper.

Inequality of educational opportunity is the cause of nearly all illiteracy among the native born. Unless the state and federal government find some way of giving aid to the weaker districts and cities the situation will continue to grow more serious from year to year.

Farmers who have become wealthy and who desire to give their children an education move from the country district to the city, adding their wealth, except the land itself, to the taxable property in the city. Then they continue to draw as much as possible from the farm. The general effect is disastrous to many country schools. The illiterates found by the draft came largely from the country. The census figures confirm this view. The country child is four times more likely to be illiterate at maturity than the city child.

After the farmer has moved to the city the same process continues. People of wealth naturally like the idea of living where other wealthy people live. They do not like to live on the farm. They do not like to live in a city which is hard up. Just as the farmers are moving to the city for school advantages, the wealthy in the cities are moving to other cities that offer better social advantages, thus adding to the taxable property in wealthy centers and subtracting from the taxable property in the weaker places.

A great handicap to the success of boys and girls in thousands of places throughout the country is this lack of educational opportunity. The condition is much more serious than the public is aware of. In some places there are no schools to attend. In many places, school is in session only 30 to 60 days. The city child attends a school with two to ten times the equipment of the school which the rural child attends. A child in one city is two or three times as well provided with supplies and equipment for school work as a child in another city, because of the difference in taxable property.

The school depends almost exclusively

on local support. For the reason already given one community is wealthy and another one poor. In Brookline, Massachusetts, there is $24,000 in taxable property for each child in the schools, whereas in Blackstone, Massachusetts, there is only $3,000 in taxable property for each child. If it were not for state aid in Massachusetts, Blackstone would levy a tax eight times that of wealthy Brookline, in order to secure equal educational advantages for her children.

In a certain county in Colorado, district No. 15 has $26,000 in taxable property for each child attending school, whereas district No. 29 in the same county has only $600 in taxable property for each child. District No. 29, in order to provide opportunities equal to those of district No. 15, must levy a tax 43 times that which is levied in the more wealthy district. In one city in Iowa, a tax of $15 is paid on each $1,000 in order to support the schools. In another more favored city only a little more than $1.00 is paid on each $1,000. Scores of inequalities of this kind can be found in states in the east and west as well as in the south, as has been revealed by many careful studies. In hundreds and thousands of districts the highest rate of taxation permitted by law will not raise funds for a six months school.

To Americanize the foreign born is as necessary as to do away with illiteracy. The failure to Americanize in past years proved a serious menace to the government in the World War. It was found in due time that the enemy was in the ranks of the army, in the factories, and in positions of trust. He located in places of advantage. He gave out secret information. He made defective shells. He caused ships to sink in mid-ocean with cargoes of ammunition and food for the armies. He placed bombs in factories. He took the lives of loyal men, women and children. It is not surprising that the American Legion opposes further immigration until the country learns to Americanize the foreign born within our borders.

A few decades ago the foreign born population was not considered a menace to our democratic institutions. Perhaps our democracy even gained strength from this element. The immigrants in those days were from the best classes in the most enlightened countries. The new immigrant comes mainly from the lower classes and from the less enlightened countries. This change has taken place during recent years. Earlier immigrants came from countries having little or no illiteracy, whereas more recent immigrants have come largely from Italy with 37 per cent. illiteracy, from Austria with 25 per cent. and from Russia with 69 per cent. In less than ten years 5,000,000 immigrants from Southern Europe have been added from these three European countries alone to the population of the country. We now have the double problem of Americanizing and of doing away with illiteracy.

The melting pot is at last too full to stir and we are shutting off part of the stream of immigration. It is to be hoped that the valves will not be opened again until the states and the nation have learned how to Americanize the millions already here and the 358,000 still permitted by law to come to America each year. In 1920 there were more than one and one half million of the foreign born within our borders who could not speak the English language.

There are foreign settlements in most of the states where the people know little, if any, more about the country and its institutions than they would know in a foreign land. The children learn to speak the language of their parents, use foreign textbooks in school, recite and converse

entirely in the foreign tongue. There were in 1920 over 22,000,000 people in the United States of foreign born parentage, and millions of these, although they vote, do not at this time speak the English language. This condition is leading many of the states to require that the elementary subjects be taught in the English language in both public and private schools.

Nor is the removal of illiteracy and the Americanization of the foreign born the only weakness in our national life which was revealed by the war. It was found that one man in every four who responded to the nation's call was rejected for general military service because of physical defects. Five times as many men were rejected for physical unfitness as were killed or wounded by the enemy.

One fourth of our young men under 31 years of age,—in the prime of life—unfit for military service! Is there a lesson for the democracy in this fact?

It was recently pointed out by a committee appointed by Herbert Hoover to investigate waste in industry that the annual loss to the nation due to *preventable* disease and death is nearly two billion dollars. This committee of scientists summed up its report by stating:

> There is experimental basis for the statement that this loss could be materially reduced and leave a balance over and above the cost of prevention of one billion dollars a year.

The same physical deficiencies that threatened our military effectiveness in the great war are biting deep into the nation's peace-time effectiveness. Ignorance of the simple rules of health and hygiene is costing us hundreds of millions each year in dollars, and a still greater loss in happiness and morals. Twenty states have no physical education laws. Only a few have really tackled the problem of physical education as a state problem.

The friends of education have had to fight for every inch of progress in the development of the public schools. At first the right to tax one man for the education of the children of another was a hotly contested point. After the public school idea had won out, there was determined opposition to giving more than a common school education at public expense, and later the same opposition was directed against the theory of a university education at the expense of the state. There is still more or less opposition to the use of funds raised in one part of the state for the support of the weaker schools in another part of the state, but the principle has at last been accepted in all the states.

Certain private school and college interests and certain wealthy centers still vigorously object to the federal governments' doing anything to correct the inequalities in educational opportunity which exist throughout the nation. But people generally are becoming more and more public-school minded. The time is not far distant when our people will stand unitedly behind not only the principle of public support for the schools but also the principle of equal educational opportunity for all American boys and girls.

Just as each state suffers from illiteracy in other states, and must sooner or later be willing to bear its share of responsibility for such conditions, the nation suffers from the illiteracy in foreign lands and must, in order to improve conditions within, share the responsibility for bad conditions without.

There must be federal aid in order to do away with illiteracy, to Americanize the foreign born and to equalize educational opportunity, and perhaps in the final solution of these problems our people will find it necessary to give both moral and financial aid for the education of the children of other lands.

As a matter of fact, a plan of helping the other nations has already been outlined. It is one which appeals to the imagination of the American people, and may even receive favorable action in due time. I refer to the proposal of John H. Finley, editor of the New York *Times*, to accept only the interest on all foreign debts and to use the funds exclusively to promote the education and welfare of the children of the nations of the world.

It is well known that men who understand questions of national and world finance are of the opinion that foreign nations can never meet their full financial obligations to each other or to us. There can be no question but that these nations can not pay their world war debts and at the same time give their children "an unfettered start in the race of life." Would it be wiser for us to try to exact the pound of flesh or would it not be larger and better for us to lend a hand to the promotion of the welfare of the children of the poverty stricken lands?

The United States took the larger view after the Boxer Rebellion in arranging to use the Boxer indemnity fund, not to put gold into the treasury of our country, but to give a good education to the greatest possible number of hte youth of China. China's friendship for the United States, so pronounced at the time of the World War, was undoubtedly due to the treatment accorded at the time of the Boxer Rebellion and the use made of the indemnity fund.

The Finley proposal is a larger thought than that of the disposal of the indemnity fund. It would benefit not just a nation but a world. The question is not so much whether we can afford to carry out the Finley proposal as to whether we can afford not to do so. The following is the proposal as given by Dr. Finley in his Andover address:

And the beginning of international morality is to be found in advice similar to the Master's advice to the rich young man,—not that we wish to sell all we have, but that we shall let what is owing us be used for the benefit of the children who have suffered most from the Great War. We have had a world war for freedom. We should have a world plan for giving the children an elementary chance to enjoy the freeing of the soul which is, with the unity of mankind, the ideal state. A plan that I proposed some time ago, and as to which I have now been encouraged by its support by men of large financial experience, is that the Allied debts be made a permanent trust fund to be administered for the education of the children of all peoples, so far as they can be so applied. This proposal has been characterized as good business—not to demand the full payment of these debts with interest. The fundamental thought on which I base the proposal is that the world as a whole owes something to the children who have had no fair chance yet, because of what those upon whom they are naturally dependent have sacrificed for the good of the world as a whole.

My original proposal was that the principal should be cancelled as it was thus spent, but a very prominent man has proposed the application of merely the interest at the rate of five per cent. annually for this purpose—that is, when it can be paid,—a ten billion dollar war debt converted into a perpetual trust fund for the children of the world, especially for those who have come trailing from the clouds of glory into the midst of the world's war, for they have not a ghost of a chance to come into the heritage of their generation. Five hundred million dollars a year, assuming that this could be paid—an incredible number of Austrian crowns and Russian rubles and Polish marks—which would give an elementary training to all the children. Ten million children a year taught the best that has been delivered unto men or invented by mankind, and led, in that tuition, toward the conscious unity of the race toward planetary consciousness! Has a more stirring opportunity been offered to any people than is ours, in the refunding of this great war debt in such way as to make it a blessing to the next generation or generations, instead of a crushing burden to the tax-paying generation of the present? If we were to demand our pound of flesh we should deserve the future fate of those in the Inferno, an eternity swathed about with cloaks of lead covered by a veneer of gold. It would be the greatest fund ever established on the earth for the salvation of civilization.

In referring to the righteousness of the plan outlined by Dr. Finley, Mr. Joy E. Morgan of the *Journal of the National Education Association* says:

> To the children of the men who fought for the betterment of humanity, the world owes an obligation which can never be paid. The best that can be done is to give them the best educational opportunity that can be provided under existing conditions. To put the great amounts that are involved in the war debts into a fund for this purpose would be a masterstroke of statesmanship. It would remove with a single gesture the withering influence of burdens which seem now to hang hopelessly as millstones about the neck of humanity. It would be to set loose in the world a leavening influence which would quicken and stimulate the lives of boys and girls and men and women everywhere. It would help the world to live by its best and inaugurate a spiritual revival greater than it has ever seen.

We have been considering problems which we must all face if the goal of either the Sons of the American Revolution or that of the National Education Association is ever to be attained.

These are the tasks immediately ahead of us which challenge our time and attention: To do away with illiteracy; to Americanize the foreign born; to equalize educational opportunity; to promote physical education and health; to provide trained teachers and improved conditions in the schools for all the children in the land; and to aid in the salvation of the youth of other lands as well as in our own. Are we ready to meet this responsibility?

J. W. CRABTREE
NATIONAL EDUCATION ASSOCIATION,
WASHINGTON, D. C.

THE SOCIAL STUDIES IN THE JUNIOR HIGH SCHOOL[1]

AN account of progress in the teaching of the social studies in our schools is full of promise. Reports that come in from all sections of the country show that the social studies are rapidly winning favor in our progressive school systems. Teachers and administrators seem quite ready to use the new materials as soon as these new materials are organized in an effective manner.

The whole movement in favor of the social studies proceeds from a recognition of the fact that hitherto our schools have given a disproportionate emphasis to the training of individuals and to the development of a competitive spirit. As our social, economic, and political life becomes more complex the need for the development of a spirit of cooperation and for the practice of cooperative activity becomes imperative. The problem of living and of working together in the modern state demands not only wholesome competition on the basis of individual merit, but also unselfish devotion to the causes that are common to us all.

My own thinking upon the problem of education proceeds on the assumption that the individual has ultimate worth in and of himself and that this ultimate worth may find its fullest and freest expression when it becomes identified with the welfare of others. If this conception is correct then the social studies may be regarded as a means for giving an outlet to the individual for the power and the accomplishment which he gains through all of the other studies of the school. Arithmetic and reading and nature study and the other subjects develop individual capacity which may be used for either good or evil purposes. Only as the power gained is turned to social uses does it become of permanent value.

The social studies in the junior high school, like all the other studies in that period of school life, depend for their effectiveness upon their adaptation to the needs, the capacities, and the interests of

[1] A paper presented before the History Section of the Wisconsin Teachers Association, at Milwaukee, November 9, 1922.

the children. Boys and girls of the junior high school age are very willing to undertake projects that are of value to groups of people. The social and the religious instincts of children are developing very rapidly at this time of life. If we are to aid these boys and girls in the best possible manner we need to find ways by which their social spirit will find natural expression.

On the side of subject matter the most significant attempt at reorganization of materials is that which Mr. H. O. Rugg and two of his colleagues are making in connection with their work in the Lincoln School of Teachers College. This reorganization represents an attempt to combine history, geography, and civics in a single course of study. Materials now are in preparation for grades seven, eight, nine, and twelve. As an illustration of the method the first pamphlet for use in the seventh grade is entitled *America and Her Immigrants* and has the following sub-titles: Who They Are. Where They Come From. Why They Come. Why They Came in the Past. How They Are Received. What They Do Here. How They Become Americans. The first pamphlet for the eighth grade is entitled *The Westward Movement and the Growth of Transportation.* The sub-titles here are: The Red Man's Continent. Why the Colonists Came. Life on the Different Frontiers. Across the Appalachian Barrier. The California Gold Rush. Natives and Immigrants as Pioneers. From Pack Horse to Pullman Car. From Flat Boat to Steamship. The first pamphlet for the ninth grade is entitled *Americanizing Our Foreign-Born* with sub-titles as follows: The Invasion of America. Colonization in Cities. The Immigrant at Work. The Immigrant at School. How He Becomes Naturalized. How He Affects American Life. How We Can Make Him a Good American Citizen. Pamphlet two for the ninth grade is entitled *Resources and Industries in a Machine World*, with these sub-titles: Can a Nation Live by Itself? Can the United States? England? Russia? China? France? Germany? The Smaller Nations? Growth of Cities—Industrial Revolution. Interdependence of City and Country. Transportation—the Key Industry. How One Worker Depends on Another. From Home to Factory. Concentration in Industry and Business.

Mr. Rugg's attempt represents an experiment in the field of social studies similar to the experiment in the field of science. Our courses in general science attempt to give a unified view and a single interpretation of the phenomena of nature without an attempt to segregate these phenomena into the various compartments, as physics, chemistry, botany, and the other specialized sciences. Up to the present time general science has not been so successful as we hoped at first that it would be. Whether the failure to attain the anticipated success is due to inherent difficulties in the plan itself or to the inadequate preparation of teachers or to a combination of causes is not easy to say. Somewhat similar difficulties seem to beset the plan to unify the social studies. The attempt which Mr. Rugg is making, however, is noteworthy and wholesome. It will be worth the while of all of us to familiarize ourselves with his project.

So far as the junior high school is concerned I am of the opinion that we need not only new materials of instruction in the social studies but also new avenues for the activity of pupils. I do not look with any great favor upon the addition of a purely informational subject to a curriculum which is already quite full. If we can reorganize such materials as we have

in geography, in history, and in civics, and present these new materials in a manner that will be in harmony with the laws of learning and if at the same time we can develop new outlets for the energy of the children I think we shall have done as much as we can do for the present.

The opportunities for active participation in civic projects are so numerous that only one who is blind can fail to see them. The teacher with initiative will have the problem not so much of finding opportunities as of organizing them in an effective manner. The school room and the school building and the school grounds afford a good starting point for social activity. One New York school reports, for example, that the students have organized and administered the traffic regulations in the school building. From a small mid-western city comes the report of the administration of the playground and of the playground apparatus by the older children of the school. One small Wisconsin city on the banks of the Mississippi offers testimony concerning the care of school property by a group of boys whose social interests were turned in the direction of repairing mutilated school desks. These boys took the desks to the manual training shop of the school, planed them, sandpapered, varnished, and finished them and replaced them in the assembly hall. I can testify from personal observation that the work was well done.

In two or three of our large cities of the central west pupils organize traffic squads to protect the younger children as they cross the streets. Safety guards protect children and property from accident and from injury. Clean-up and paint-up squads have done much to improve the appearance of some of our cities and to reduce the unusual fire hazard which comes from the accumulation of rubbish and of unused materials.

In no case need the task be one beyond the power of the individual to perform it. Caring for plants, straightening books on the shelves of the library, keeping the shades on the windows regulated at the proper height, keeping floors and blackboards clean, guarding school property from mutilation by indifferent, careless, or lawless pupils, planting trees and shrubbery on the school grounds, cutting weeds on the highway or on vacant property, beautifying the approaches to public buildings and to parks are forms of activity of so varied a nature that almost everyone may find something to do. In all of this work there is a minimum of theory and a maximum of activity. The children learn the theory of good citizenship by actually being good citizens, first of the small community of which they are a part and then of the larger community outside of the school. One civics class of which I happen to have knowledge was instrumental in inducing the city fathers to beautify in the midst of the city a small tract where refuse had been dumped. Through the active interest of a group of boys and girls the health department was led to enforce a city health ordinance governing the cleanliness of milk.

In some places the social activities of the children are made the agency for acquainting them with the civic, social, and industrial life of the city in which they live. Excursions to parks and to spots of scenic and historic beauty, trips to museums and laboratories, to shops and to factories, to banks and to large industrial plants all tend to give children an insight into our civic and industrial life and to imbue these children with a sense of civic pride and of civic duty.

In order that the efforts of both teachers and children may not be too diffuse it is well to have some kind of organizing principle under which various activities may

be grouped. In several well known cities rather definite organizations of the children have been made under such names as "Civic and Vocational League" and "League of Junior Citizens." In these organizations the children have opportunities for expressing their initiative and for showing their leadership under the guidance of teachers and of adult citizens, many of whom are glad to become sponsors for the movement. The field indeed is a rich one, calling for willing and intelligent organization on the part of teachers and school administrators.

A good textbook also will help in the process of organizing the work. The only difficulty connected with the use of a text arises from the fact that textbooks are likely to be the masters rather than the servants. Blind following of textbook material is deadening. On the other hand the absence of all specific information upon points about which the children need to be informed is likely to lead to inaccuracy and to confusion.

Many school civic clubs have found it expedient to have some form of ritual or ceremony in connection with their exercises. The "Oath of the Athenian Youth" and the "Salute to the Flag" are both useful and appropriate in this connection. It is well to remember, however, that it would be most unwise to require any unwilling person to recite either of these formulæ. In large school systems where there are a good many foreigners teachers will occasionally find pupils who do not wish to make the pledge to the flag. There may be, too, some who conscientiously object to the taking of any kind of oath. Such persons should not be coerced nor should any attempt be made to coerce them. The only kind of patriotism which is worth while is that which comes as a free will offering on the part of the individual. Outward manifestations of patriotism without the inner devotion are empty things. Our aim always is to inculcate that kind of love of country from which the observances of patriotism will flow naturally.

It is unwise, especially in the very impressionable years covered by the junior high school, to give any kind of instruction that borders upon chauvinism. If any example were needed to prove the unfortunate consequences of chauvinistic teaching, the recent history of Germany would supply it. No one is able yet to measure the evil consequences of the narrow, nationalistic teachings of Germany in the years just before the war. The spirit of "Deutschland ueber Alles" has brought untold misery upon the world. If we read our history aright we shall not make a similar mistake in our American public schools.

Another danger closely akin to that already mentioned is that through the teaching of civics and citizenship and the other social studies we may come to look upon perfection as a state already attained instead of thinking of perfectability as the ideal towards which we should strive. We are still in the making and we wish, in this process, to have the benefit of all good example and of all good instruction from whatever source they may be derived. Without in the least diminishing our love for America and our devotion to her ideals we still may profit by giving honor to other examples of idealism in government and in social and economic life wherever this idealism may be found. We wish to have not a static America but a living, growing, dynamic America. Consequently teachers of the social studies are under special obligation to divest themselves of all narrow partisanship and of all efforts at propaganda for special causes in order

that they may be untrammelled seekers after truth and in order that they may teach the children under their care to love the truth and to follow it wherever it may lead them.

In conclusion, then, the social studies in the junior high school afford an opportunity for developing the natural tendencies of children of the early adolescent age to identify themselves with group interests of ever-widening proportions. These tendencies, instead of being repressed, should be developed by means of satisfying information accompanied by purposeful activity of a kind that harmonizes with the ability of the children. This program calls for teachers of large sympathies, of generous understanding, and of a broad-minded outlook upon the world. We may hope very confidently that the outcome of the teaching of the social studies by right-minded persons will be to make the America of the future, even as the America of today, a worth while place for the abode of men and women who are not perfect but who are striving for perfection.

THOMAS WARRINGTON GOSLING
THE MADISON PUBLIC SCHOOLS,
MADISON, WISCONSIN

THE PROCESS OF SURVEYING HIGHER EDUCATION

INTROSPECTION has become increasingly common in American education during the present century. This tendency parallels, and finds its source in, that gradual evolution which has changed education from the special privilege of the few to the right of the masses. While the college stood on the aristocratic basis of preparation for the learned professions only, it was a matter of little concern to the people at large. But when higher education had demonstrated itself as an excellent tool for workmen in many of life's callings, the population of our country was enlisted en masse in the movement to bring the college to the people. As soon as college training was publicly financed on a large scale it became a subject of popular interest and, during the past decade, of investigation. This desire for investigation has unquestionably been due in most public institutions to a situation where enrollments mounted at such a rate as to call for apparently unreasonable increases in public taxation and expenditure. The people were willing to spend, but they naturally wanted to know why they had to spend so much. As a consequence has come the educational survey.

The first higher-educational surveys are said to have been made at Oberlin College by its own officers in 1908-09 and at Miami University in 1913.[1]

No published college surveys are listed in the Bureau of Education's "List of References on Educational Surveys" (Library Leaflet, No. 12, October, 1920) for some time after these dates, although the public school survey was already well established.

On November 19, 1912, the legislature of Vermont provided for a commission to report upon the educational responsibilities of the state, including particularly an investigation into the public expenditures for the University of Vermont and State Agricultural College, Middlebury College and Norwich University. This survey was made by the Carnegie Foundation for the Advancement of Teaching and was published in 1914. In the following year two other surveys of higher education were published: the "Report upon the Survey of the University of Wisconsin" (including the survey made by Dr. W. H. Allen,

[1] College and University Surveys, by Francis A. Thomson. SCHOOL AND SOCIETY, 5: 721-28, June 23, 1917.

then of the New York Bureau of Municipal Research), and the "Report of a Survey of the University of Oregon" made by Dr. S. P. Capen for the U. S. Bureau of Education.

These three documents are historically of the utmost importance since they are the first in this field and represent entirely different methods of procedure. Survey methods during the ensuing period have tended to establish a technique more in conformity with the Carnegie and Capen surveys than with the work of Dr. Allen. The unprejudiced observer will find in all three types some principles and methods which might justly have a place in the "ideal survey."

In the seven or eight years since the publication of these three original reports, college surveying has passed the experimental stage and, in spite of the great war, has become a recognized activity of educational research. Its bibliography, however, is not yet extensive and may be easily gathered in greater part from the already mentioned Library Leaflet No. 12, October 1920, of the Bureau of Education. The early surveyors were, as has been said, the Carnegie Foundation, Dr. W. H. Allen of the New York Bureau of Municipal Research, and the U. S. Bureau of Education. A few others have been added in the interval as, for example, the Council of Church Boards of Education with its "Statistical Survey of Illinois Colleges"; the Association of American Colleges (Colorado College, A Study in Higher Education, Bulletin for May, 1922); and certain of the great private foundations which have conducted college surveys for their own use in connection with their benefactions.

It has remained for the Bureau of Education alone to continue its work in the higher-educational survey from year to year and to develop therein a definite method which can be applied with only minor changes to any institution. The credit for the establishment of uniform survey methods belongs unquestionably to Dr. Samuel P. Capen, formerly specialist in higher education at the Bureau of Education and later director of the American Council on Education,[2] and to those associated with him in his earlier surveys. On a purely objective basis the bureau through Dr. Capen has built up a number of tests, educational and financial, which can easily be applied in any situation and which have now been actually applied in more than a dozen important colleges and universities. The value of this is incalculable. For unsupported personal judgment there may now be substituted in many particulars the comparative method with its clear exposition of the abnormal or unusual. Surveying by this method is like rolling a snowball down hill—the process becomes continually easier and the results of ever increasing weight and importance.

Dr. E. F. Buehner[3] has established a broad basis for the school survey when he includes in its requisites the historical development of the system; the relationship of educational need to economic, political and social conditions; and a constructive program. It is the particularization of the second head with which we are here chiefly interested and this "relationship" must necessarily be interpreted in its broadest sense. Certain facts common to every institution must first be obtained as a basis for judgment in every survey. Probably any classification which might be adopted would be more or less justly open to criticism. However it is necessary

[2] Now chancellor of the University of Buffalo.

[3] Report of the Commissioner of Education, 1915, Vol. 1, p. 491.

to bear in mind that a *few primary and essential facts* will furnish a better basis for judgment than a superfluity of less important items. Hence in the Bureau surveys the effort has been constantly made to avoid the pitfall of mass of detail. The resulting survey technique is valuable because it has given us the necessary data for the comparison of the main features, educational and financial, of a number of institutions.

EDUCATIONAL SURVEY DATA

What are the things which a survey should find out and tell about a faculty? Should it confine itself strictly to an exposition of objective fact, or should it include the results of personal judgment as well? The Bureau's surveys have in general adopted the policy of collecting and tabulating facts (as, for example, degrees, institutions attended, publications, experience, etc.) and of comparing these results with the standards set in such matters by the various standardizing organizations. In most cases no effort has been made to visit classes and to judge by personal inspection the efficiency of the teacher. Herein the Allen technique differs widely. In the latter considerable attention is given to classroom visitation and the results are interpreted at length. On the other hand the statistics on training, experience and productive activity are given only in condensed summary.

The teaching load is a vital element in determining the efficiency of instruction, but nothing is harder to reduce to accurate standards for comparison. The student-clock-hour plan, generally used in the Bureau surveys, means that "one student under instruction in lecture, quiz and laboratory for at least 50 minutes net represents one student clock hour; for example, therefore, 20 students meeting four hours a week represent 80 student clock hours." This system of measurement is open to grave criticism, particularly by reason of the fact that in lecture sections the instructor works no harder in lecturing to 100 students than to 50, but his load is apparently double. An arbitrary correction might be made by counting no lecture period at over 30 students, the accepted limit of the recitation section. In any case however, in spite of apparent deficiences, this method of computation seems to be the best yet devised and the total average term load for an institution or a department gives an excellent index for comparisons with other institutions or departments. Thus it gives considerable insight into conditions to learn from the Bureau's surveys[4]:

At the University of Nevada the average number of student clock hours per instructor for the whole institution was during the first semester for which the survey was made, 221.6; and in the second semester, 218. The range of departmental averages was from 27 to 451. At the State University of Iowa the average number of student clock hours per instructor for the year 1914-15 was 252; at the Iowa State College of Agriculture and Mechanic Arts, 312; at the University of Washington, 333½; at the Washington State College, 214.4. The range of departmental averages was at the State University of Iowa from 71 in Greek to 501 in geology; at the University of Washington from 94 in mining engineering to 684.4 in zoology. No such extreme conditions of overloading are to be found at the College of Hawaii, and the general average per instructor of 202+ is distinctly lower than that found at any other institution surveyed by the Bureau.

True these figures deal with the often decried "averages," but averages are only misleading when based on scanty cases. When taken for an entire institution they furnish a reliable picture of conditions and are doubly valuable if it is possible to institute comparisons with similarly gained figures in other institutions.

[4] A Survey of Education in Hawaii, Bulletin, 1920, No. 16, pg. 279.

The types of survey data just given have been picked at random from a considerable number in order to show the value of the "culmulative survey method" by which a certain standard technique is applied to several institutions with a resulting gain through possibility for comparisons. The same principle is of value in surveying the financial side of an institution's activities.

FINANCIAL SURVEY DATA

A standard system for classification of educational expenditures is still a thing of the future. The great private foundations have labored heroically in this field and have unquestionably been instrumental in bringing system to many colleges whose financial affairs were in a chaotic condition. Possibly the present cooperation between the Educational Finance Inquiry (conducted under the auspices of the American Council on Education) and the U. S. Bureau of Education may result in the ideal standard classification form. For the past few years, however, the Bureau has been using in its surveys a brief, yet comprehensive schedule which allows comparison of expenditures for various main purposes in the institutions surveyed. This is based upon the idea that all university expenditures must of necessity fall into three main groups: education on the campus; research; and extension work. The Bureau's schedule follows:

- Total Expenditures
  - Educational
    - Construction and land (capital outlay)
    - Special funds (rotating, etc.)
    - Operating expenditures
      - Instruction
      - Educational equipment and supplies
      - General operating expenses (overhead)
  - Research
  - Extension

The significant item is, of course, that of "operating expenditures." This, divided by the average attendance for the two semesters of the year, gives the "student cost." Naturally a number of objections may be adduced. For example, no allowance is made for prorating capital outlay, so that each year may bear its just proportion. No allowance is made, in counting attendance, for students taking more or less work than the regular prescription. But these are, after all minor details.[4] The important thing is that the Bureau, by using the *same* method for surveying a number of institutions, has made valuable comparisons possible and has thus enabled any college executive to ascertain whether his student numbers are in reasonable proportion to his operating costs, as judged by the experiences of other colleges. By such results is the objective survey method justified. Opinions as to efficiency may differ, but identical facts, marshalled for comparison, lead to conclusions which can not be disputed.

It is not the purpose of this discussion to go farther into comparative financial details. Enough has been said to make clear the fact that the chief value of the Bureau's surveys lies in their continuing use of the same methods. The matter may not be dismissed however without reference to a subject which has been too much neglected in all hitherto published surveys, namely, the budget. Budget study should, in the opinion of the writer, serve as the approach to the survey of any institution. The budget is, or should be, the spinal cord, so to speak, of a university's existence, the vital base from which all activities radiate and on which they depend. Unfortunately the importance of proper budgeting is still but vaguely understood in many of our American colleges. It is a matter of regret that the only comprehensive study ever made of this subject[5] has not been published for general

[5] A Study of the Business Administration of Colleges; University of Chicago Dissertation, 1921, by J. A. Burrus.

circulation and is not available to the public. A quotation from this study is here given to emphasize again the vital necessity of proper budget procedure:

The importance of the working budget can scarcely be over-emphasized. The necessity for something of the sort is so apparent that institutions where there is no real budget system frequently have a working budget, in one form or another. It bears the same relationship to the operations of the year as the working plans for a building bear to the construction of that building. The complete working budget may be looked upon as a guidebook to all the activities of the college, setting forth their relative importance in terms of money and their relationship to one another.

It presents in a more effective way than that afforded by any other device an analysis of the entire organization and work of the institution, and it gives one a better insight into the management, the extent and variety of its activities, and its general efficiency than may be had in any other way.

So important is the working budget that it may be considered as the center of the entire business administration of the college. The hopes of all departments are embodied in it so far as there is any possibility of their realization within the period covered by it. The work of every division and every enterprise at the college revolves about it. It merits, therefore, the best attention that can be given to it; and it is not too much to say that the manner in which it is worked out and followed is an index to the efficiency of the institution.

The foregoing makes clear why the budget furnishes the best avenue of approach to the study of any higher educational institution. Not only for estimating financial procedure and detail is it valuable, but for judging from an important angle educational efficiency itself. With the budget the systems of accounting and of reporting expenditures are inseparably connected, since an identical schedule for the classification of expenditures must underlie them all. To this phase of the higher-educational field, the existing survey technique has devoted but little attention. A surveyor could have no better avenue to the heart of an institution's affairs than the privilege of attending the various departmental and administrative conferences on the annual budget.

PARKE R. KOLBE
THE MUNICIPAL UNIVERSITY OF AKRON

EDUCATIONAL EVENTS

PRESIDENT HARDING ON EDUCATION WEEK

IN a proclamation issued November 19 President Harding requested State and local authorities to observe the week of December 3-9 as American Education Week. The text of the President's proclamation is as follows:

The ideals of democratic government and democratic education were planted simultaneously in our country. The fathers rightly believed that only a people trained to vision of public needs and duties could develop and maintain the institutions of popular government. The system of universal education, established in the beginnings, has developed with the country and become one of the characteristic features of our life. In it we have laid the foundation of that system of American culture which has enabled us to absorb and assimilate millions who have come to us from many countries, bringing the traditions of widely varying institutions.

In order that we may keep in mind the need constantly to improve our educational system, it is proposed that the week of December 3-9, inclusive, be set aside for special observance as American Education week. It is recommended to the governors of the States that they cooperate with the educational and civic authorities of their commonwealths to make the week a period for revival of interest in the broad work of national education.

It is gratifying to know that in a time when public burdens have lain very heavy upon the people there has been everywhere a determined purpose to maintain education unimpaired, in order that the coming generation may be equipped, regardless of sacrifices in the present, for the increasing responsibilities which it must bear.

Without vision the people perish. Without education there can be little vision. Of education it may be said that "it is twice blest; it blesseth him that gives and him that takes." It will be greatly worth the effort, if, as an incident to the observance of Education Week, we can impress

this thought upon the young manhood and womanhood of the nation and redirect their interest and patriotic zeal to the idea of making a proper contribution to educational work. It is regrettable that so few young men and women equipped for such service are nowadays disposed to give their time and talents to teaching. Education needs their youth, eagerness, zeal and enthusiasm. There is no school of discipline more effective than that in which the teacher goes to school. We could do no greater service than by convincing those young men and women who have enjoyed educational opportunity that they owe a reasonable share of their time and energies to teaching.

The strength and security of the nation will always rest in the intelligent body of its people. Our education should implant conceptions of public duty and private obligation broad enough to envisage the problems of a greatly distraught world. More than anything else, men and women need the capacity to see with clear eye and to contemplate with open, unprejudiced mind the issues of these times. Only through a properly motivated and generously inspired process of education can this be accomplished.

In view, then, of these and many other considerations, I hereby proclaim the week of December 3-9 as American Education week, recommending to the appropriate national, State and local authorities that they give their cordial support and cooperation to making its observance inspirational and beneficial. Civic organizations and religious bodies may render special service by their cooperation; and particularly it is recommended that parents enlist themselves in behalf of closer understanding between the school and the home, with the purpose of mutual helpfulness.

In consideration and witness thereof, I have hereunto set my hand and caused the seal of the United States to be affixed.

Done at the city of Washington this twentieth day of November, in the year of our Lord one thousand nine hundred and twenty-two and of the independence of the United States the one hundred and forty-seventh.

WARREN G. HARDING.

IMMIGRANT EDUCATION IN MASSACHUSETTS

More that 22,000 foreign born residents of Massachusetts were enrolled in public classes of study last year, and are now taking the first steps toward American citizenship. The latest bulletin from the Massachusetts State Division of University Extension makes it clear that immigrant education has lately received a decided impetus. The figures show a present total of 22,242 students as against 3,551 in 1918-1919, or a growth of 560 per cent. in three years.

"Thus Massachusetts, having the [illegible] largest number of foreign-born among her residents of states in the Union, has yet so far advanced by this process of education that she stands twenty-third in the percentage of foreign-born unable to speak English."

The "language barrier" is being successfully broken down by citizens and immigrants alike, working with the same aim; and Americanization work, according to the department, has come to stay. "Massachusetts," it announces, "refuses to regard this phase of Americanization as a war activity. The cities and towns of Massachusetts, having started the work of removing the language barrier seem determined to put this task through and to pay the cost therefor."

WILMINGTON AND THE PLATOON PLAN

A vigorous defence of the platoon plan of school organization in Wilmington, Delaware, is made by Mrs. Mary D. Bradford in articles printed in newspapers of that city. Replying to a member of the Wilmington school board who had criticized the platoon plan as too expensive, Mrs. Bradford said:

The platoon system, which is arraigned by Mr. Stradley, recognizes the need to normal child development of work and play, as well as study. In olden days, the schools did not have to supply facilities for the first two—the back lots and open spaces provided places to play, and the home duties furnished opportunities for hand work. But times have changed. People are massed in cities, and safe play space is gone. Besides we want the play supervised. If educational balance is to be preserved, the schools in cities like this must furnish the means for it.

When Wilmington is fully and rightly equipped with schools built for, and adapted to, the work—study—play plan, there will be ample playgrounds for free play and directed out-of-doors sports, as well as gymnasiums for other forms of exercise, and there will be in all schools properly equipped rooms and shops where art and hand-craft may

to all, where girls will have a chance ... the fundamentals of women's work in ... and boys a chance to profit by learning ... the common tools of industry.

... has demonstrated beyond contradiction that all this may be done without impairing in any way the work with the academic subjects. In fact it is found that pupils in schools ... the varied programs are better qualified in ... academic subjects than under the old system. ... Because these schools are better adapted ... needs and interests of children, and the ... ment in academic work is the natural response of children to this better, more scientific ... method.

... is a better, more vital program made possible by the platoon plan but it is relieving the overcrowded condition, and doing away with ... part-time evil. At Number 9 school, in Wilmington, where the platoon plan has started, 534 children are under the influence of the school ... six hours a day, and 60 more might be accommodated. This number includes 214 children who, without it, would have a school seat for a half-day only, and the rest of the time be on their mother's hands, or in the street. It is serious social neglect not to furnish children with proper school opportunities and a full school day. The platoon plan offers one way of remedying this evil.

But it costs more,—"The platoon system, too expensive!" is the statement. It will probably be found here, as elsewhere, that it does not cost more when all the benefits gotten for the money are taken into consideration.

It is the large number of teachers needed that furnishes the real basis for the complaint—and Mr. Stradley cites in contrast a school where twelve teachers take care of 600 children—an average of fifty each. Shades of the dark ages! Fifty children crowded into one room, and an earnest teacher trying to do justice to them! She can't do it! It is an impossibility even for the best teacher to do it!

God speed the day of that enlightened public opinion that shall say: "Our school facilities must be increased until there are not more than thirty children for a teacher."

POST-WAR CONDITIONS AT TRINITY COLLEGE, DUBLIN

A PICTURE of the stress under which college education has proceeded in Ireland is presented in a recent report from Trinity College, Dublin, presented in the *London Times Educational Supplement*. The correspondent begins: "Remembering how last term ended to the rattle of machine-guns and with smoke rising from the ruins of Sackville-street, one salutes the new term with a sense of thankfulness that our buildings are still intact; the only mark of the times that they show being those legends which Republican propagandists paint up every night, and the Free State police efface each morning, on the long stretch of our southern wall, so that it displays a pleasing arabesque of red paint, whitewash and tar."

The number of matriculants has fallen, but less than might be expected, seeing how hard hit are the classes on whom we mainly depend. The worst of our immediate difficulties is the non-payment of rents; the deficit for the financial year just closing will hardly fall short of £10,000 under this head alone, and the prospect of recovering arrears is scarcely bright. * * * * * We recognize that in future we must look to the Irish Government for such financial support as we require; we consider, however, that we have an equitable claim on the British Exchequer in respect of the two years during which the Government of Ireland Act remained on the statute-book, and for which, therefore, as we contend, our grant should have been paid. As for the future, we must depend on the wisdom and good will of our new authorities. The Provisional Government has just paid us an installment of grant, which, though inadequate to our needs, is welcome as a recognition of our claim on the public funds. We have, indeed, no reason, so far, to complain of the government's attitude, and our position has been very much strengthened by the decision to make parliamentary representation of the universities an article of the new constitution. * * * * .

In spite of financial stress, something has been done within the last year to meet the needs of our scientific departments. By means of certain structural improvements the physiological and zoological laboratories have been put in a fairly satisfactory condition. The School of Chemistry has been able to make shift with a comparatively small outlay on alterations, though a new chemical laboratory is, and remains, one of our most urgent requirements.

SPECIAL COURSES FOR FRESHMEN

SPECIAL initiatory courses for freshmen are described in a report just issued by Committee

G of the American Association of University Professors, of which Professor E. H. Wilkins of the University of Chicago is chairman. Courses given at Amherst, Antioch, Brown, Columbia, Dartmouth, Johns Hopkins, Leland Stanford, Missouri, Princeton, Rutgers and Williams are listed and discussed in the report.

The committee believes that one of the most important features of many of these introductory courses is that they aim to "train the student in thinking." They therefore recommend that a course in "Thinking" be given in the freshman year, together with a course on "The nature of the world and of man," both courses to be required of all freshmen.

Discussing some of the admitted difficulties in inaugurating the second of these courses, the committee says:

> A second problem which concerns this and all interdepartmental survey courses is the danger of superficiality. In the consideration of this danger there seems to us to be need for careful discrimination in the use of terms: for the word "superficial" is often used thoughtlessly—not to say superficially. It is obvious that any course which touches several fields can not enter deeply into the detailed content of any one field. In this *descriptive* sense, any survey course whatsoever is superficial; it *describes the surface* of a broad field. But the description of a surface need not be superficial in its intellectual aims or its intellectual results. It will be intellectually superficial if the instructor gives the impression that his swift survey conveys all that is worth knowing about each portion of the field; it will *not* be intellectually superficial if the instructor recognizes constantly the limitations of the course, makes it clear that he is touching only the surface of each portion of the field, and suggests something of the significance of the material within each field which the course can not examine. Such treatment, instead of giving "a false sense of omniscience," would give a due sense of intellectual humility; and instead of "taking the edge off the adventure of learning" would whet the eagerness for such adventure.

THE NATIONAL ASSOCIATION OF SECONDARY SCHOOL PRINCIPALS

The National Association of Secondary School Principals will hold its annual meeting in the Winton Hotel, Cleveland, February 27 to March 1. There will be five sessions, in addition to three round table conferences: the junior high school, the small high school, and the large high school. On Tuesday evening the association will join the rural and elementary school principals in the discussion of the general theme "Administering public education in the interests of the child and state." The topics for the other sessions will include educational and vocational guidance, dean of girls, grouping of pupils according to tests, moral training, the place of the junior high school, the over-crowded buildings, place of social affairs, secondary school objectives, effect of compulsory education laws, high school activities, and cooperative government.

The officers in charge of the association for this year are: President, Edward Rynearson, principal of Fifth Avenue High School, Pittsburgh, Pa.; first vice-president, Ray H. Bracewell, principal of high school, Burlington, Iowa; second vice-president, Philip W. L. Cox, principal of Lincoln Junior-Senior High School, Teachers College, Columbia University, New York City; secretary-treasurer, H. V. Church, principal of J. Sterling Morton High School, Cicero, Illinois. The members of the executive committee for this year are: Charles A. Bradley, principal of Manual Training High School, Denver, Colo.; Edmund D. Lyon, principal of East High School, Cincinnati, Ohio; Merle Prunty, principal of Central High School, Tulsa, Oklahoma.

EDUCATIONAL NOTES AND NEWS

Dr. Thomas Jesse Jones, educational director of the Phelps-Stokes Fund, and chairman of the African Education Commission, was the guest of honor at a dinner given by the Institute of International Education at the Columbia University Club, New York City, on November 23. Dr. Stephen P. Duggan was toastmaster, and addresses were made by Dr. Jones, Dr. Anson Phelps Stokes, former secretary of Yale University, Fennel P. Turner, of the Committee of Reference and Counsel of the Mission Boards of North America, J. H. Dillard, of the Jeanes Fund, Professor Paul

Monroe, of Teachers College, Columbia University, and J. E. K. Aggrey, a member of the African Commission.

PROFESSOR ALBION W. SMALL, head of the department of sociology and editor of the *American Journal of Sociology* at the University of Chicago, has been elected an honorary member of the sociological section of the Roumanian Social Institute. Professor Small recently received another honor from a foreign society, being elected president of the Institute International de Sociologie.

AMBASSADOR HERRICK accepted honorary degrees on November 25 awarded by the University of Paris to Elihu Root, President A. Lawrence Lowell, of Harvard, and Professor A. A. Michelson, of the University of Chicago.

AT a meeting of the executive committee of the National Committee for a Department of Education, held at the residence of Mrs. Joseph Swan, New York City, on November 15, Miss Chail O. Williams, field secretary of the National Education Association, was elected executive secretary to succeed William H. Bixby, of Boston.

DR. WILLIAM L. ETTINGER, superintendent of public schools of New York City, is announced as the principal speaker at a reunion of the Arista chapters of twenty high schools at the Bushwick High School, New York, on December 7.

CHARLES W. KEMP has recently been appointed field professor in teacher training at the Massachusetts Agricultural College. A graduate of the New Hampshire State College, Mr. Kemp has had wide experience in practical agriculture. He assisted in a survey of dairy farms in New Hampshire. In 1911 he began teaching and has taught at five New England academies and agricultural schools.

GEORGE W. HODGKINS is in charge of extension courses for teachers in service for the counties of Carroll, Frederick, and Washington, Maryland, with headquarters at Western Maryland College, Westminster.

CHARLES S. MCVAY, superintendent of schools at Mingo Junction, Ohio, has been elected superintendent of schools at New Philadelphia, Ohio, to succeed the late Charles F. Limbach.

K. A. MOYERS, principal of the Huttonsville, W. Va., high school, has resigned to become superintendent of schools at Gassaway, W. Va.

R. E. STORY, superintendent of schools at Harlem, Montana, has tendered his resignation. In his letter to the board he said: "I regret that the economic situation is not such as to warrant my continuing in this field."

A $10,000 scholarship fund has been raised in honor of Frank B. Cooper, who retired as superintendent of the Seattle, Washington, schools after 21 years of service. Charles Metsker, of the University Heights school, was chairman of a committee on which were representatives of every school which raised the fund. The interest only is to be used to assist needy and worthy students through the high school.

FORMER pupils and friends recently presented an attractive little cottage to Miss Sallie Evans, for 40 consecutive years a teacher in the primary grades of Corsicana, Texas. The gift was publicly announced by J. L. Halber, mayor of Corsicana, who said: "After your long years of toil in the service of the children of this community, may God grant you many years of peace and comfort and happiness in the little home which love has builded for you."

PROFESSOR FELIX FRANKFURTER, of the Harvard Law School, and Professor Harlan Updegraff, of the School of Education of the University of Pennsylvania, were among the speakers at the annual meeting of the National Municipal League in Philadelphia, November 22, 23 and 24. The League has announced two prize essay contests for college undergraduates. Three subjects have been chosen for the W. H. Baldwin prize: "City managership as a profession"; "The non-partizan movement in American cities"; and "The functions of municipal bureaus of information, complaint, and legal aid." The Baldwin prize essays must be completed before April 15, 1923. The Morton Dennison Hull prize essays may be written

on any subject of which the committee approves, and must be completed before September 15, 1923. The address of the National Municipal League is 261 Broadway, New York City.

DR. HENRY S. LEHR, founder and president emeritus of Ohio Northern University, was stricken with paralysis recently in his home at Ada, Ohio. Dr. Lehr is 85 years old.

PROFESSOR FRANK E. WOODRUFF, of Bowdoin College, died on November 19, in his 68th year. He had been professor of Greek at Bowdoin since 1887, serving also as superintendent of schools at Brunswick, Me., from 1900 to 1904. He was recently elected to the Maine State Legislature by a large majority on the Democratic ticket.

ROBERT LOUIS SANDERSON, assistant professor of French, *Emeritus*, at Yale, and for many years on the teaching staff of Harvard, died at Duxbury, Mass., on November 6.

THE sixth annual Red Cross "roll call," which ended on Thanksgiving Day, is reported to have been praticularly successful among the schools of the country to which appeals were made for membership in the Junior Red Cross. In an address at the Maxwell Training School for Teachers, New York City, on November 23, Miss Mabel Boardman, national secretary of the American Red Cross, declared that the Junior Red Cross should be of the greatest service in preventing war by its appeal "to the noblest part of the child's nature" as represented in its motto "I serve" and in its aim "Happy childhood the world over."

PROBLEMS relating to registration and recording were discussed at a meeting of registrars of the teacher training institutions of Michigan at the Michigan State Normal College, Ypsilanti, on November 21. Registrar C. R. Steimle, of the college, presided. This was one of the meetings held as a sectional group of the American Association of Collegiate Registrars.

IN commemoration of the completion of the first ten years of the Rice Institute as an educational institution, a community Thanksgiving service was held in the city auditorium at Houston on November 30. The decennial address on this occasion was scheduled to be delivered by President Hibben, of Princeton University.

DENVER by a very large majority voted on October 10 to issue bonds to the amount of $6,150,000 for the building of elementary schools, and senior and junior high schools.

AT the annual convention of the Colorado Education Association, held November 7-11, the out-of-state speakers were: Dr. James Parton Haney, director of art, New York; Miss Mary E. Woolley, president of Mt. Holyoke College; Dr. T. E. Johnson, state superintendent of public instruction of Michigan; former Governor W. L. Harding, Des Moines, Iowa.

WORLD WAR veterans entitled to vocational training who have not already applied for it must make application before December 16, it is announced, that being the final date set by the vocational rehabilitation act. October 1, 1922, there were 96,941 disabled veterans receiving vocational training under the Veterans Bureau, officials say. This figure indicates that the peak of vocational training has been passed, the high water mark having been attained in March, 1922, when there were 109,805 disabled veterans receiving such training. The number of veterans who had completed training up to October 1 was 22,505.

THE measure adopted by Oregon voters on November 7 whereby attendance of children under sixteen upon public schools is made compulsory becomes effective September 1, 1926, private and parochial schools thus having four years in which to adjust their affairs.

AN Associated Press dispatch states that the public elementary schools at West Frankfort, Illinois, closed since September because of lack of funds to pay teachers, will remain closed as the result of failure of citizens to reach an agreement on the situation. Thirty-five hundred children are affected. The teachers walked out following the defeat at a local election of a proposed bond issue of $64,000 which was

to have been used in paying their salaries. A similar proposed issue had been defeated previously.

An announcement to the Canadian press, issued from Winnipeg, Manitoba, reported that fire destroyed St. Boniface College on November 25 and that eight persons were missing. Four bodies had been recovered, but not identified and four persons were still unaccounted for.

Under the direction of Dean John L. Manahan, of the University of Virginia, an instructional survey of the white schools of Essex County, Virginia, has just been completed. Dr. Manahan was assisted by graduate students of the university, principals of the high schools, and Division Superintendent W. G. Rennolds. Tests were given in spelling, reading in grades 2 and 3, writing, fundamentals in arithmetic, reasoning, and composition.

At a dinner of the editorial staff of the *New York Times* recently given in honor of the oldest editor, E. A. Bradford, one of the toasts was given by Dr. John H. Finley, who paid tribute to Mr. Bradford and to the *Times* staff in part as follows:

> I am asked to speak to the eldest because I am the youngest member of the staff in service, and I have the usual embarrassment of youth. In another field, where I have served many years, I have been a member of several faculties, and I have presided over at least three. But I have never found a more agreeable or illuminating faculty than has daily gathered around this table. Usually and excusably every member of a college faculty thinks that his subject is the one of supreme importance—the key to all human knowledge. But there is here not only greatest breadth of view, but also greatest tolerance. The only intolerance I have observed is of superficiality, shamming and deceit.

Announcement has been made at Harvard that the appointment office, maintained for placing Harvard graduates in teaching positions, and the student employment office have been combined and both offices will now be in charge of George W. Cram, as secretary of the Harvard Faculty of Arts and Sciences. Mr. Cram was recorder of the university from 1893 to 1921. Along with the duties of these combined offices, Mr. Cram will have supervision of the various catalogs of the university. The appointment office was formerly headed by Miss Louisa L. McCready, who resigned to take charge of the Division of Personnel of the American Council of Education, in Washington, D. C.

An attendance of 800 is expected at the fourth annual Young Men's Vocational Conference, to be held at the Montana State College, Bozeman, January 8 to 12.

The Public Education and Child Labor Association of Pennsylvania has recently published results of the survey of the public schools of Philadelphia made in the winter of 1920-21 by the Pennsylvania State Department of Public Instruction. The report covers four volumes. A summary of the survey was given by Dr. Finegan last March.

In the recent election in Florida, the result of the vote on the school tax amendment was 31,952 for the amendment and 9,804 against.

Among the demands for legislation which the New York State Federation of Labor is said to plan for the coming session of the State Assembly are "Erasing the two Lusk laws giving the State control over courses of instruction offered by private institutions of learning and requiring public school teachers to undergo loyalty tests" and "Free textbooks and proper medical care of school children."

Gifts aggregating $205,000 to Willamette University have been announced by the endowment committee in charge of the financial development project which calls for the raising of $1,250,000. The committee started the project on November 20 and will run it for a month. The donors of these preliminary gifts were R. A. Booth, of Eugene, Oregon, and F. S. Collins, of Portland, who gave $100,000 each and J. W. Day, of Portland, who gave $5,000.

Haverford College has received a gift of 2,000 volumes on Romance philology, the life-

time collection of the late Dr. J. E. Matzke, for many years professor of Romance philology at Leland Stanford Junior University. They were presented to the college by Dr. Edith Hedges Matzke, widow of Professor Matzke and D. E. Matzke and R. R. Matzke, recent graduates of Haverford. The gift will be known as the John E. Matzke Memorial Library.

THE goal of $200,000 for the local district in the Philadelphia College of Pharmacy endowment campaign has been exceeded by more than $80,000. Fraternities and students contributed $53,000, chemical firms gave $45,000 and the remainder came from Philadelphia alumni. Alumni outside of Philadelphia are now being solicited.

IN a recent interview in the *Daily Princetonian* Thomas A. Edison was quoted as saying that the college graduate of to-day objects to work, especially when it is dirty work. "He does not want a job with much work to it. He expects to be appointed foreman at the end of his sixth week. Most of the men working for me have never gone to college. The college graduates that I have usually show a lack of imagination. They scarcely have any suggestions to make in their daily routine which might lead to improvements in their departments."

THE Tufts College Teachers' Association, composed of graduates of the college who are engaged in teaching, held the most largely attended meeting in its history at Medford, Mass., on November 18. Edward A. Filene, of Boston, addressed the teachers on the work of the high schools from the viewpoint of one outside the teaching profession.

THE General Association of Kentucky Baptists, at a session in Middlesboro, Ky., recently, passed resolutions withdrawing financial support from their denominational schools in the state "in which the Darwinian or any other theory of evolution contradicting any part of the Bible is taught." At the Texas Baptist general convention held at Waco, a report of the board of trustees was adopted, according to the Associated Press, vindicating S. P. Brooks, president and most of the Baylor University faculty from any connection with what were termed heretical teachings. The dispatch stated that:

Mr. Brooks assured the 3,000 delegates that [illegible] such teachings were allowed. Dr. George W. Truett, of Dallas, asserted that the board would not retain a teacher who encouraged any theory not in accordance with the Holy Scriptures. Some of the pastors desired a repudiation of the Darwin theory in so far as it conflicted with the Biblical account of creation. That was necessary, they said, to restore perfect confidence in the Baptist educational program. They said that two teachers remained in the school who are alleged to have declared that the Genesis account of creation might be allegorical. These teachers, they said, should be discharged. A special committee was appointed to determine whether the heresy charges were true.

ACTING on orders received from Colonel C. R. Forbes, director of the Veterans Bureau, President E. D. Dexter, of the United States Vocational School Number 1 at Chillicothe, Ohio, recently notified students who went on "strike" that unless they resumed training at once their names will be removed from the training payroll. It is said that 237 of the 472 students are on "strike." The men left their training when rent on their quarters was raised $10 to $22 a month. This increase was for fuel during the winter months, some of the students having voted to accept the offer.

SPECIAL CORRESPONDENCE

THE VISUAL INSTRUCTION ASSOCIATION OF AMERICA

VISUAL instruction has passed from the domain of academic interest and speculative inquiry to the realm of practical pedagogy. Definitions differ, but virtually all progressive educators to-day agree that the visual appeal constitutes an essential and important factor in the teaching process. Strikingly extensive investigations, already launched or recently proposed, are aimed not so much at the validity of this idea as at the manner of its application.

Certain typical visual aids, such as the stereograph, the slide and the film, have come into more or less general use among teachers, in

addition to the black-board, the illustrated text, the diagram, the chart and the placard or poster, which have long been common-places of educational equipment. Little has been done, however, to familiarize teachers with the most effective methods of utilizing these instrumentalities, with the result that the whole question of visual methodology is chaotic in the extreme. In the circumstances the production of this type of material has proceeded, quite naturally, along equally haphazard lines.

A CLEARING HOUSE NEEDED

For a long time the need has been obvious of some sort of clearing house, where educators and those who seek to supply their practical needs in this field could exchange ideas, compare experiences, and so clear up this vexed situation.

Last winter at Chicago, while the Division of Superintendence of the National Educational Association was in session, the writer brought together a small group of such persons, who had manifested more than usual interest in the subject, and plans were laid for organizing a national association to meet this need. These plans were carried into execution with signal success in connection with the Boston meeting of the National Educational Association, during the first week of July, when the Visual Instruction Association of America was definitely and fully organized. A constitution and by-laws were adopted and permanent officers elected, including vice-presidents for twenty states and the District of Columbia, all nominated from the floor. Aside from the state vice-presidents, the officers chosen were as follows:

President, Ernest L. Crandall, director of lectures and visual instruction in the schools of New York.

National Vice-President, A. G. Balcom, assistant superintendent of schools of Newark, N. J., in charge of visual instruction.

Recording Secretary, Don Carlos Ellis, formerly director of the motion picture division of the U. S. Department of Agriculture.

Treasurer, Charles H. Mills, director of publicity of the Boy Scouts of America.

Corresponding Secretary, Dr. Rowland Rogers, instructor of motion picture production at Columbia University.

BOSTON SESSIONS A PRONOUNCED SUCCESS

In addition to supplying the picture program of the regularly constituted section of the National Educational Association, on Monday, July 3rd, the association held on July 5th a continuous demonstration of visual instruction material, both slides and films, at Paul Revere Hall and a mass meeting on the subject of visual instruction at Tremont Temple the following day, the principal speaker at the latter meeting being U. S. Commissioner of Education John J. Tigert. Paul Revere Hall was packed to capacity from morning till ten P. M., and the Tremont Temple meeting was equally well attended.

In view of the fact that the attention thus attracted moved the National Council of Education to appoint a committee on visual instruction, together with the little side light that Mr. Will Hayes addressed what was perhaps the most crowded session of the major body, those of us who are interested in visual instruction and sense its tremendous possibilities may well feel that it is at last beginning to come into its own among the educators of the country.

HARD WORK AHEAD

This is scarcely half the battle, however, and the most intensive activity on a nation-wide scale and for a long time to come will be needed to "sell" this radical reform in the teaching process, not only to educators, but to appropriating bodies which must provide the considerable initial costs of effective inauguration of the method, and also to the general public, parents and citizens, who in the last analysis are the final arbiters, and who must be convinced not only of its superior efficacy but of its ultimate economy. For this vitally needed campaign the founders and promoters of the Visual Instruction Association of America feel that this organization is peculiarly equipped. Perhaps its qualifications, as well as its immediate aims can not be better stated than to quote from the first circular issued since its permanent organization, which reads in part as follows:

WHAT THE ASSOCIATION IS

1. It promotes the use of visual aids to instruction in the elementary and high schools of the nation.

2. It is a great clearing house for the interchange of ideas on visual instruction.

3. It will evaluate and determine the best method and use of visual aids.

4. It will supply information about all types of visual aids to members of the association.

5. It will issue bulletins from time to time which will be of value to its members.

6. It does not produce or distribute or sell visual aids or equipment.

7. It is not organized for pecuniary profit nor does it compete or conflict with any organization, group or association in the field.

8. The problem of visual instruction is both an educational and technical problem. Therefore, the Visual Instruction Association of America has invited into membership on an equal basis, educators, producers and manufacturers. Each makes his special contribution to the common problem. Under the constitution, the educational members always exercise the controlling voice.

WHO SHOULD JOIN AND WHY

1. All persons who are in any way using or contemplating the use of visual aids for educational purposes and who value the experience of others.

2. Everyone who has had practical experience in the use of visual aids, and who is willing to pass on to others the benefit of his or her advice.

3. All individuals or firms who have anything to do with the preparation or distribution of visual aids and who care to sit at a round table with others in the same field, and with those who are expected to use the products.

4. All persons who are in any slightest or greatest degree interested in one of the most potent modern influences in progressive education—namely, visual aids for instructional purposes.

IMMEDIATE PLANS

1. The association will make a statistical survey of existing visual instruction material, including films, slides, charts, projection apparatus, etc.

2. It will keep on file a list of visual instruction material produced, distributed or manufactured by the members of the association and supply this data to all inquirers.

3. It will keep a classified list of requests for new visual instruction material which is not available.

4. It will notify school systems of the service the association is rendering. It will issue a bulletin periodically telling of its service and equipment.

THE OPEN DOOR

The corresponding secretary, Mr. Rowland Rogers, 71 West 23rd Street, New York City, or the treasurer, Mr. Charles H. Mills, 280 Fifth Avenue, New York City, will be glad to furnish more detailed information to anyone interested. The association welcomes not only the affiliation, but the active cooperation of all classes of persons and organizations, parents, citizens and social workers as well as educators, also producers and distributors of visual material and their representatives, in short anyone who can bring to bear upon our problems any degree of trained intelligence and sympathetic interest, whether that intelligence consists of pedagogic skill, expert technical information or mere knowledge of human nature and whether that interest is dictated by professional zeal, general regard for child welfare or a purely business instinct for seeking more effective means of serving the schools with visual material.

Our problem is an exclusive one, the improvement of visual education in the schools of the country. With such other problems as are attendant upon or incidental to the use of the film or other visual aids in any other field we are in no wise concerned, though we shall be glad to work with or for any improvement or reform in which any group of our fellow citizens are interested. Accordingly our outdoors are open, we are crossing no-one's corners and invading no-one's territory and our motto is neither isolation nor competition, but cooperation with a capital C.

ERNEST L. CRANDALL

NEW YORK CITY

EDUCATIONAL RESEARCH AND STATISTICS

THE ACQUISITION OF SKILL IN THE THROWING OF BASKET-BALL GOALS

THE coaching of athletic teams involves processes of education that have seldom been submitted to the scrutiny of psychological examination. Both instruction and training are

involved in successful coaching. In fact, the coaching of base-ball, foot-ball, basket-ball and track and field sports has been pretty thoroughly standardized. Largely through trial and error methods of instruction have developed and certain forms of drill have to some extent been crystallized. The principles that underlie good coaching, developed as they have been through the rivalry of coaches striving for tangible results, may, for this reason, be psychologically sounder than some of the principles that govern instruction in the class-room. On the other hand, probably there may be as much misapplication of effort and waste of time on the athletic field as in the school. At any rate, the study of ways and means of increasing efficiency in the familiar forms of athletics offers an inviting field to the investigator.

During the spring of 1921 I made a study of the factors involved in the increase of efficiency in the throwing of basket-ball goals. The experiment is reported not so much to publish important findings as to give an account of experience in attempting an investigation of this character—an account which may be of value to another working in the same general field.

In the beginning I was interested in examining a particular form of drill commonly used in training candidates for basket-ball teams, in estimating the amount of transfer of efficiency from the drill to game situations, and in determining the length of the best practice period. As I planned the experiment I became convinced that I was dealing with a much more complicated problem than I at first realized. In the projected study the efficiency of a relatively small number of individuals was to be studied; the measure was to be a group measure; and one small group was to be compared with another small group. Groups are not comparable unless they are similar, and homogeneous as their individual constitution. A precise measurement would call for the selection of subjects of the same age and height, the same degree of intelligence, with no previous experience or the same amount of it. There should be as little variation in the health and vitality of the subjects as could be secured. External conditions should be regulated as far as might be possible. The experiment should be conducted in a room where temperature and pressure, if possible, were kept constant. The ball used would have to be kept at the same weight and degree of inflation. All such conditions would have to be met if we are testing solely for improvement in efficiency, unaffected by differences of age, height, intelligence, health, previous experience, and variation of external conditions. The isolation of the factor to be measured from all other factors with which it is bound offers the chief difficulty. Obviously, unless variable factors are not eliminated or controlled the validity of the results of the experiment may be called into question.

It is evident that an experimenter is unable to control all variable factors. I have not attempted this, nor have I even attempted to control several factors which I might have controlled, but I have called attention to the presence of variables and have attempted to estimate the importance of the part which they have played. Twenty-two subjects took part in the experiment, a group of college students coming from the sophomore, junior and senior classes of Millsaps College, ranging in age from 19 to 32, and in height from five feet four inches to six feet. None of the subjects had had previous training in basket-ball for a year, and none of them had ever played on a regular college team. The subjects were divided into three groups. Groups I and II, consisting of seven men each, were assigned to regular drill, and Group III was set aside as a control group for testing transfer of training.

Description of the Drill.—The drill used in the experiment was that most frequently used by coaches in training basket-ball players. The subjects formed in line one behind the other on the left hand side of the goal not nearer than five feet to the goal post. A person not taking part in the drill threw the ball to the first man in line, who received it, took several steps toward the goal, and threw the ball toward the basket with a right-hand-over-head movement.

Rules Governing the Practice.—(1) Practice hours were set for Tuesdays, Thursdays and Saturdays of each week from 8:30 to 9:30

A. M. (2) Eight days were required for the experiment, including six days of drill and two days for testing for transfer. (3) Barometer and thermometer readings were taken at the beginning of practice each day. (4) The general health of the subjects, as indicated by the way they *felt*, was scored each day, "good," "medium" and "bad." (5) After each practice period the scores were read to the subjects as a stimulus to effort.

The Most Efficient Practice Period.—For determining the most efficient practice period Group I and Group II were drilled for periods of different lengths. The length of period was measured by the number of throws and not by the amount of time. The subjects of Group I were given four 10-throw practice periods each day, with three rest periods of five minutes each between the practices. Each man thus made 40 trials each morning and the group made a total of 280 trials. The subjects of Group II were given two 20-throw practice periods each day, with a rest period of 15 minutes between practices, thus allowing the individuals and the group the same number of trials that Group I was allowed. The purpose of this part of the experiment was to find out whether the subjects improved in skill more rapidly with long or short practice periods, with short distributed rest periods or with long ones.

After six days' trial the percentage of efficiency for each day was computed by averaging the scores of the respective practice periods. The following results in terms of percentages are given:

Day	1	2	3	4	5	6
Group I	43.5	48.3	55.3	51.2	57.9	70.0
Group II	31.1	43.2	42.5	54.3	63.2	54.6

A glance at these figures is sufficient to assure you that the groups are hardly comparable. The initial score of Group I is higher than the score of Group II at the end of the second day's practice. Let us made no allowance, however, for this difference in the initial efficiency of the two groups and proceed to estimate the gain through practice. In determining the rate of improvement, the percentages of the first two days made by each group were averaged and subtracted from the percentages, similarly averaged, for the last two days. The last two days of practice for Group I show an improvement over the first two days of 18.0 points; the last two days of practice of Group II show an improvement over the first two days of 21.8 points. Although an advantage of 3.8 points seems to favor the 20-throw group, the 10-throw group, starting at a higher level, and making almost as great a gain, can scarcely be discredited. It has not been proved that a practice period of 10 throws is either better or worse than a practice period of 20 throws. The 20-throw period is probably not too long.

Fatigue Test.—In order to determine whether there was any diminution of efficiency due to fatigue in the 20-throw practice, the scores of the first half of each practice period were separated from the scores of the second half with the following results:

Day	1		2		3		4		5		6	
Half period	1	2	1	2	1	2	1	2	1	2	1	2
First practice	17	22	30	26	30	36	35	40	39	41	29	37
Second practice	22	24	28	37	27	26	37	38	40	46	46	44

Total scores, first half-period, first practice 170
Total scores, second half-period, first practice 202
Total scores, first half-period, second practice 208
Total scores, second half-period, second practice 251

It is thus seen that the first half-period of the first practice was the least productive, and that each succeeding half-period was more productive of results than the half-period next preceding. There seems to be no diminution due to fatigue that is not more than covered by an increase of efficiency due to practice. This seems to confirm the conclusion reached in the preceding paragraph, that a 20-throw practice period is not too long. Further investigation is needed to determine whether a 30 or 40-throw period would not prove better still than a 20-throw period.

Does Height Make for Efficiency?—It is frequently assumed that tall men make better basket-ball players than do short men. Interesting data have been collected on this point. Efficiency, in this case, was measured by the number of goals thrown out of a total of 240 trials by each individual, and the efficiency of the groups was found by adding the individual scores. The following tabulation tells its own story:

Three individuals, Group I, average height 5.10, total scores 401
Three individuals, Group I, average height 5.6, total scores 328
Three individuals, Group II, average height 5.11, total scores 363
Three individuals, Group II, average height 5.5, total scores 340

The tall men in each group are found to have made the highest scores. The results are suggestive but the number of individuals tested is too small to claim for the experiment absolute reliability.

Does Age Affect Learning?—The test furnished an opportunity to study the effect of age upon learning. Three of the subjects were 32 years of age and three were 21. The total score of the 32-year-olds was 354, and of the 21-year-olds, 316. In comparing the scores of both groups for the first two days with the last four days of practice it was found that the older group showed a percentage improvement of 28.3 per cent. and the younger group an improvement of 25.8 per cent. The advantage seems to lie, if anywhere, with the older group. These figures should probably be discounted because of the fact that all the older subjects were listed in the number of tall men, previously considered, and all the younger subjects in the list of short men. Discounting this fact, the older men seem to have developed efficiency in goal throwing no less rapidly than the younger men.

Does Feeling "Bad" Lower the Score?—The answer to this question is by no means satisfactorily answered in this test. The number of subjects from whom we secured data is too small for us to place much confidence in the results. At the morning roll calls three subjects reported that they felt "bad;" two of these had reported on the preceding morning that they felt only "medium;" the same two reported on the day following that they felt "medium." The other subject reported "good" on both the day preceding and the day following the day when he reported "bad." In this study we assumed (with little right to do so) that daily drill periods of the same length will result in increments of skill in approximately the same amount, unless some outside force deters or stimulates progress. To determine the effect of the deterrent force, in this case apparent ill-health, it was necessary to determine an hypothecated score that the subject would have made had he been in his usual good health. This hypothecated score was found by averaging the scores of the day previous with that of the day following the one on which the subject reported that he felt "bad." The results follow:

INFLUENCE OF "FEELING BAD"

Subject A		Subject B		Subject C	
Health	Score	Health	Score	Health	Score
Medium	15	Medium	27	Good	12
Bad	23 (19)	Bad	30 (30.5)	Bad	16 (14)
Medium	23	Medium	34	Good	16

The hypothecated score in only one instance is higher than that actually made on the day when the subjects reported that they felt "bad." Of course this is but a rough measure, but the figures suggest that the indisposition indicated by the report "bad" did not appreciably handicap the performances of that day. Again, the number of subjects measured is small, and the indefiniteness of the term "feeling bad" affects the reliability of the results.

Effect of Temperature and Pressure—Temperature and pressure readings were recorded with the following results:

Effect of Temperature and Pressure

	Group 1	Group 2
March 31, Tem. 56, barom. 29.71	43.5	31.1
April 2, Tem. 48, barom. 30.08	48.3	43.2
April 5, Tem. 64, barom. 29.95	55.3	42.5
April 7, Tem. 69, barom. 29.92	51.2	54.3
April 9, Tem. 55, barom. 30.	57.9	63.2
April 12, Tem. 59, barom. 30.04	70.	54.6

The lowest thermometer reading registered 48 degrees and the highest 69 degrees, showing a variation of 21 degrees during the period of drill. The lowest barometer reading was 29.71 on the first day, and the highest, 30.08 on the second day. An attempt to find a relation between temperature, pressure and achievement resulted in failure. Improvement of the scores through practice seems to proceed without reference to temperature or pressure, although the data at hand is scarcely sufficient to speak with any degree of assurance on this matter.

Transfer of Training—One of the chief mo-

tives of our study was to test the amount of transfer from a familiar drill situation to game situations. Two game situations were selected. Both groups were tested and scores tabulated before and after taking the drill. In order to check results to prevent reading into the final scores the proficiency gained during the initial tests, Group III, consisting of eight subjects, took the initial tests, and, without drill, took the final tests at the conclusion of the experiment.

A description of the game situations is in order. Game Situation No. 1 (Test I) was a free thrown from the foul line. The subject took position on the foul line with feet about one and a half or two feet apart, flexed waist and knees, bent forward, and threw the ball toward the basket with a lifting movement. Game Situation No. 2 (Test II) was an artificial arrangement provided to test the performance of a player apparently eluding the guard of an opponent and throwing for a goal with a continuous movement. A wooden strip about six feet long was held above and parallel to the line marking the free-throw lane on the right hand side of the goal. The subject took a position at the juncture of the free-throw lane with the goal circle, on the right and facing the goal. The strip was held at a height half way between his shoulder and elbow. He received the ball from the direction of the end-line at an angle of 45 degrees with the free-throw boundary, dodged under the strip and threw the ball with a push directly up from the chest.

The movements made in Game Situation No. 1, in no way that could be observed, resembled the movements made in the drill. The movements made in Game Situation No. 2 differed from the drill in that the subject threw from the right of the goal instead of the left, and used both arms, the left slightly more than the right. I had difficulty in preventing the subjects from corrupting the movement to that of the drill.

The following scores were secured for the three groups:

TRANSFER OF TRAINING

	Test I	Test II
Group I (before drill)	22.8	40.7
Group I (after drill)	43.0	54.3
Group II (before drill)	38.6	44.3
Group II (after drill)	32.8	50.3
Control Group (before)	30.2	38.7
Control Group (without drill)	35.0	33.7

In Test I, the free throw from the foul line, Group I, which had received four ten-throw drill periods a day for six days, threw 22.8 per cent. of the goals tried before drill, and 43 per cent. of those tried after drill. The score of 22.8 probably does not represent a true measure of the initial ability of this group since both of the other groups scored at least ten points higher than this in the same test, and since this group scored 43.5 per cent. of its trials in the first day of the drill. Under other circumstances we should probably have secured a higher initial score from this group. However, making due allowance for this fact, we still have a small positive transfer. Group II, drilled with two 20-throw practice periods for six days, registers a negative transfer in this test. The control group, without drill, scored five points more on the final trial than on the first, a fact that should lead us to further discount the evidence of positive transfer in the case of Group I. On the whole, we are not justifiefid in making an exorbitant claim for transfer on the basis of the scores in Test I.

In Test II the scores indicate a positive transfer in the case of each of the drilled groups. This can be accounted for by the similarity of movements used in the test with those used in the drill.

In conclusion, I do not claim for this study any virtue except that of opening up an interesting field of study. The results are hardly more than suggestive. The experiment was not conducted under laboratory conditions which would have made possible the elimination or control of variable factors other than the one to be measured. The scores tabulated certainly represent a compound of a number of factors. Isolation of these factors with a separate study devoted to each would probably secure for us results that would be of considerable value in the improvement of efficiency in basket-ball.

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